



**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q65274

Hayao WATANABE, et al.

Appln. No.: 09/885,942

Group Art Unit: 2834

Confirmation No.: 7069

Examiner: KARL I. TAMAI

Filed: June 22, 2001

For: SEALED ACTUATOR

**REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41**

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.41, Appellant respectfully submits this Reply Brief in response to the Examiner's Answer dated August 18, 2004. Entry of this Reply Brief is respectfully requested.

**STATUS OF CLAIMS**

Claims 1-24 are pending, are allowed, and are not the subject of this appeal;  
Claims 25-30 and 34-36 have been canceled, and are not the subject of this appeal;  
Claims 31-33 and 37-39 have been rejected, and are the subject of this appeal.

**GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

**Issue 1:** Claims 31-33 and 37-39 are rejected under §112, 1<sup>st</sup> paragraph, as containing subject matter not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed invention.

**Issue 2:** In response to Appellants' Brief as filed on June 10, 2004, the Examiner has withdrawn this ground of rejection.

**Issue 3:** Claims 31, 32, 37, and 38, are rejected under §103(a) as being obvious over the Appellants' Admitted Prior Art (hereinafter the APA) in view of US Patent 2,887,062 to Cametti (hereinafter Cametti) and WO 94/23911 to Hofmeister (hereinafter Hofmeister).

**Issue 4:** Claims 33 and 39 are rejected under §103(a) as being obvious over the APA, Cametti, and Hofmeister, and further in view of FR 2,527,854 to Jacquin (hereinafter Jacquin).

## ARGUMENT

### Issue 1

The Examiner’s “Response to Argument” as set forth in item 11, on pages 5-7 of the Examiner’s Answer, is flawed for at least the following three reasons.

First, with reference to col. 14, line 38, the Examiner asserts that “the specification discloses the use of the magnetic and optical encoder as a comparison for why the reluctance resolver is necessary ...”<sup>1</sup> But the specification does not use the term “necessary” in connection with the choice of the reluctance resolver over a magnetic or optical encoder. Further, the portion of the specification relied upon by the Examiner pertains to the embodiment of Fig. 5, which is only one of various exemplary embodiments disclosed in the specification. That is, the specification specifically states that “the reason why the sealed actuator **of the [Fig. 5] embodiment adopts the variable reluctance (VR type) resolver** as detecting means ...”<sup>2</sup> The lack of detailed disclosure concerning magnetic and optical encoders is not due to their exclusion from the scope of the present invention but, merely, due to the fact that the specification need not teach, and preferably omits, that which is well known in the art.<sup>3</sup> More specifically, one of ordinary skill in the art would readily recognize, by reading Appellants’ disclosure, that when not in an ultra-high vacuum environment, magnetic and optical encoders perform an adequate job of “high accuracy positioning, ... for high accuracy smooth driving.”<sup>4</sup>

Second, the Examiner impermissibly attempts to narrow Appellants’ invention to one example of an environment in which it may be used. In the paragraph bridging pages 6 and 7, the Examiner asserts that “Applicant has not identified any problems in prior art systems that are

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<sup>1</sup> Examiner’s Answer at page 5, 2<sup>nd</sup> full paragraph.

<sup>2</sup> Specification at col. 14, lines 37-40 (emphasis added).

<sup>3</sup> *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 3 USPQ2d 1737 (Fed. Cir. 1987).

<sup>4</sup> Specification at col. 14, lines 41-44.

not directed to high vacuum environments.” This, simply, is not true. Appellants do identify problems associated with using an actuator in a vacuum environment.<sup>5</sup> But then Appellants identify further problems associated with sealed actuators, wherein those problems do not concern the environment in which the actuator is used; instead, those problems relate to the interaction between bearings and the partition wall. For example, see col. 3, line 25 - col. 4, line 9.

Third, the Examiner attempts to narrow the claims in light of the specification by impermissibly importing subject matter from the specification into the claims. This he cannot do, as it violates a history of sound precedent to the contrary.<sup>6</sup> After all, claims are to be given their broadest reasonable interpretation.<sup>7</sup> Specifically, here, the Examiner asserts that in light of Appellants’ “intended choice of environment”, one of ordinary skill would not consider optic and electric encoders as proper equivalents.<sup>8</sup> But the claims do not recite any environment in which the sealed actuator is to be used; instead, they generically recite only a “sealed actuator”. See, for example, the preamble of claim 31. Moreover, for the sake of argument alone, even if the preamble did recite an intended use of the sealed actuator (which it clearly does not), it would still be impermissible for the Examiner to limit the structure by reference to that use.<sup>9</sup>

#### Drawings

Appellants submit that the objection to the drawings is tied to the Examiners rejection of claims 31-33 and 37-39 under §112, 1<sup>st</sup> paragraph. Accordingly, pursuant to MPEP §2163.06,

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<sup>5</sup> Specification at col. 1, line 11 - col. 3, line 24.

<sup>6</sup> *Leibel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898 (Fed. Cir. 2004). See also, *McCarty v. Lehigh Valley R.R. Co.*, 160 U.S. 110, 116 (1895).

<sup>7</sup> MPEP § 2111, and cases cited therein.

<sup>8</sup> Examiner’s Answer at page 7, 1<sup>st</sup> full paragraph.

<sup>9</sup> *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ.2d 1550, 1553 (Fed. Cir. 1997).

(I) and (II), Appellants respectfully submit that appeal is the proper avenue for resolving this issue.

**Issue 2**

The Examiner has withdrawn the rejection addressed as issue 2 in Appellants' brief as filed on June 10, 2004. Accordingly, no further discussion is believed necessary.

**Issue 3**

The Examiner's "Response to Argument" as set forth in item 11, on pages 8-11 of the Examiner's Answer, is flawed for at least the following reasons.

The Examiner's interpretation of the APA is wrong, and is contrary to the specific disclosure of the APA. That is, the Examiner asserts that element 216a is a "housing", yet the APA specifically discloses that this element is a "partition wall". Compare the Examiner's Answer at page 8, 3<sup>rd</sup> full paragraph, lines 1-3, and the present specification at col. 3, lines 44-52. Further, the Examiner attempts to split element 216a into a "partition wall" and a "reinforcement means". See the Examiner's Answer at page 9, wherein he asserts that "this expanded portion is a reinforcement means is [sic] integrally formed with the partition wall and the housing." Yet the APA specifically discloses that the "partition walls 216a and 236a [are] extended from the housing 216 and the housing 236 ..." Note col. 3, lines 49-50. That is, the APA discloses that it is the partition wall 216a itself that is extended from the housing; there is no disclosure of an additional reinforcement means.

Further, the Examiner erroneously interprets Appellants' argument and thereby reaches the wrong conclusion in asserting that "the force acting on the partition wall between the rotor and stator are not persuasive because the limitations have not been recited as part of the claimed invention."

Appellants' argument regarding the forces from the bearings acting directly on the partition wall 216a of the APA is directed to showing that the bearings are not located so that "said housing directly receives a load applied to said bearings" as set forth in claim 37.

For example, as shown in Fig. 1 of the present application, vacuum roller bearings 17, 18 are disposed at both sides of a member constituting a sealing partition wall 33 in a longitudinal

direction of the motor rotor 12 so that the housing 23, 24 directly receives a load applied to the bearings. That is, the bearings 17, 18 do not act on the partition wall 33. See, for example, col. 12, lines 16-33. Accordingly, the partition wall does not deform upon application of a load to the bearings.

In contrast to that set forth in claim 37, the APA discloses bearings 218 that are mounted, and transmit a force that acts, directly on the partition wall 216a. See Fig. 7. Further, note col. 3, line 59 - col. 4, line 1, wherein for the APA, the specification states that the APA's

bearings [are] disposed in the housings 216 and 236 including the thin partition wall, ...[so that it] has a problem that supporting rigidity of the respective drive shafts to the housings is lowered. ... the force acting on the bearings acts also on the partition wall so that such a possibility can not be neglected that the partition wall is deformed or the partition wall is broken.

Indeed, in the APA, the upper bearing for each actuator is disposed on the partition wall 216a. Accordingly, a force acting on the bearings acts also on the partition wall so that such a possibility can not be neglected that the partition wall is deformed or the partition wall is broken.<sup>10</sup>

#### **Issue 4**

No further discussion of this issue is believed to be necessary.

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<sup>10</sup> Specification at the sentence bridging columns 3 and 4.

**CONCLUSION**

For the above reasons as well as the reasons set forth in Appeal Brief, Appellants respectfully request that the Board reverse the Examiner's rejections of all claims on Appeal. An early and favorable decision on the merits of this Appeal is respectfully requested.

Respectfully submitted,



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Date: October 15, 2004